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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re Patent Application of

Elisabeth LAKSO et al.

Application No.: 09/720,908

Filed: March 9, 2001

For: USE OF A POLYETHENE
MATERIAL PRODUCED FROM
RENEWABLE RAW MATERIAL
AS COMPONENT OF AN
ABSORBENT ARTICLE, AND
THE ABSORBENT ARTICLE

) **Mail Stop APPEAL BRIEF - PATENTS**

) Group Art Unit: 3761

) Examiner: Karin M. Reichle

) Appeal No.: 1

APPEAL BRIEF

Mail Stop APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This appeal is from the decision of the Primary Examiner dated November 2, 2004, finally rejecting claims 1-7, 16-22, 29, 30 and 34-38, which are reproduced as the Claims Appendix of this brief.

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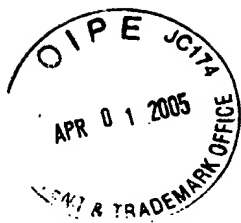


Table of Contents

	Page
I. Real Party in Interest	2
II. Related Appeals and Interferences	2
III. Status of Claims	2
IV. Status of Amendments	2
V. Summary Claimed Subject Matter	2
VI. Grounds of Rejection to be Reviewed on Appeal	5
VII. Argument	6
A. <u>The Art</u>	6
B. <u>Examiner's Rejection</u>	7
C. <u>Applicants' Position</u>	8
VIII. Claims Appendix	16

I. Real Party in Interest

The present application is assigned to SCA Hygiene Products AB.

II. Related Appeals and Interferences

The Appellants' legal representative, or assignee, does not know of any other appeal or interferences which will affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

III. Status of Claims

The application contains 38 claims. Claims 8-15, 23-28, and 31-33 are canceled. All the remaining claims, namely claims 1-7, 16-22, 29, 30, and 34-38, stand finally rejected and form the basis for this appeal.

IV. Status of Amendments

There were no amendments filed subsequent to the final Office Action.

V. Summary Claimed Subject Matter

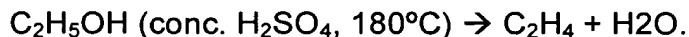
Embodiments of the present invention relate to the use of material that contains polyethene produced from renewable raw material as a component of an absorbent article, absorbent articles, and a method of producing an absorbent article, absorbent article components, and packaging material or units comprised of material that contains polyethene produced from renewable raw material. Page 1, lines 11-15.

An object of embodiments of the present invention is to provide an absorbent disposable product and a packaging material that is environmentally friendly. This object is achieved in accordance with the invention by the use of a material which contains polyethene and which is produced from renewable raw material. Page 2, lines 2-6.

At present ethene is taken from petroleum crude products, which are not renewable and which deplete natural resources in this respect. Furthermore, the incineration of polyethene results in the forming of carbon dioxide, which contributes to the undesired greenhouse effect. Page 8, line 19 – page 9, line 2.

According to an aspect of embodiments of the invention, renewable ethene is used to produce an environmentally friendly product, where the ethene is produced from a renewable raw material, such as ethanol. Ethanol is renewable when it is produced from a reproducible plant (Plantae). Sugar is converted to ethanol and carbon dioxide by fermentation under the influence of yeast fungi: $C_6H_{12}O_6 \rightarrow 2C_2H_5OH + 2CO_2$. Potatoes, seed, forest raw materials or other plants are used in the fermentation process. Every fruit, berry, or plant constituent that includes sugar can be fermented. Page 9, lines 4-10.

Ethene can be produced from the renewable ethanol by dehydrating ethanol. Alcohol loses a water molecule and forms alkene when heated with a strong acid. Ethanol is heated to 180°C with concentrated sulphuric acid:



Page 9, lines 11-14.

Polyethene which can be produced from the renewable ethene in the aforescribed manner, is already known in the art. It is also known to produce ethene from ethanol in the manner described above. The novelty in the present context resides in the use of renewable raw materials in the manufacture of polyethene for use in absorbent articles, which according to embodiments of the invention result in environmentally friendly absorbent articles. Polyethene is used as material in components of the article, e.g., as liquid impermeable backing sheets, outer sheets or top sheets, diaper fastening tape, or as waist elastic. The novelty also resides in the use of renewable raw materials in manufacturing polyethene for use as packaging material. Page 9, line 15 – page 10, line 4.

Embodiments of the invention relate to an entirely novel use of material that contains polyethene produced from renewable raw materials in absorbent articles and packaging materials. Page 10, lines 11-12.

On an industrial scale, it was not known to use polyethene produced from renewable raw materials for the manufacture of absorbent articles and packaging materials, lessening the load on the environment and the depletion of existing petroleum resources. Another advantage afforded by embodiments of the invention is found in the possible incineration of disposable products and disposable packaging materials subsequent to their use. Incineration of polyethene generates carbon dioxide. This carbon dioxide contributes to the undesired greenhouse effect. When using renewable raw materials, however, CO₂ has been consumed in the formation of the plants. This positive effect is also obtained when the products or packaging materials are dumped in the garbage dumps, since CO₂ has also been consumed in the formation of the plants in this case. The use of renewable raw materials thus has a mitigating effect on the greenhouse effect. Page 10, line 12 – page 11, line 5.

Polyethene is produced from renewable raw material, processed and then used as components of an absorbent article, such as a diaper, a sanitary napkin, an incontinence protector, a panty liner, a pant diaper, or like article. The polyethene produced from renewable raw materials is also used for packaging material components. The packaging components concerned are, e.g., film or some other part of a packaging unit. Page 11, lines 6-10.

The material used may comprise up to 100% polyethene that has been produced from renewable raw material. Alternatively, the polyethene may be mixed with other materials, such as starch, for facilitating degradation of the material. Many different materials can be used together with the polyethene. Examples include other renewable materials, nonrenewable materials or fillers. When the material used contains polyethene produced from renewable raw material and some other material, the polyethene may be present in an amount corresponding to about 50 to 99% and the remainder consists of some other material. The percentile proportion of said other material will depend on the nature of the material and the reason why it has been mixed with the polyethene. With relatively large percentages of polyethene, the polyethene may be present in quantities corresponding to 60-80%. At times, only a small percentage of this other material will be used, e.g., 5% or from

1 to 20%, in which case the polyethene produced from renewable raw material will be 95% or from 80 to 99%. A feasible material mixture is one in which there is used polyethene produced from renewable raw material and polyethene produced from a petroleum product. The proportion of polyethene produced from renewable raw material will vary from 1 to 99%. Thus, the percentage of polyethene produced from renewable raw material will depend on the purpose and on the material mixed therewith. When the polyethene produced from renewable raw material is mixed with some other material, this is also referred to as a mixture. The material composition described here also applies to the material used as packaging in accordance with the invention. Page 13, line 12 – page 14, line 12.

One advantage afforded by embodiments of the invention is that it is environmentally friendly by virtue of including components that are produced from material which contains polyethene produced from renewable raw material. This raw material does not deplete the petroleum sources of a community. Another advantage afforded by the use of renewable raw materials is that plants consume carbon dioxide as they develop, meaning that the greenhouse effect will not increase when using renewable raw materials instead of petroleum raw materials when said products are incinerated after use. This advantage also applies if the product is not incinerated, since the plant has already absorbed CO₂, thus contributing to a reduction in the greenhouse effect. Page 19, lines 5-13.

VI. Grounds of Rejection to be Reviewed on Appeal

The final Office Action presents the following ground of rejection for review on this appeal:

The rejection of claims 1-7, 16-22, 29, 30, and 34-38 under 35 U.S.C § 103, as being unpatentable over Applicants' disclosure, Barrocas et al. (US Pat. No. 4,232,179), Toms et al. (US Pat. No. 5,417,679), Cargill (WO 94/07941), Klomp (US Pat. No. 5,176,699), Widlund (US Pat. No. 5,024,672), Sigl (US Pat. No. 4,582,550), and the definition of "polyethylenes," first paragraph, in the Materials Handbook.

VII. Argument

A. The Art

Seven documents have been cited against the rejected claims, as well as portions of Applicants' disclosure. A brief discussion of each publication is provided.

Barrocas et al., U.S. Patent No. 4,232,179, relates to a process for preparing ethene. The process involves dehydrating ethyl alcohol using adiabatic reactors and a high temperature. The production of polyethene is not taught or mentioned.

Toms et al., U.S. Patent No. 5,417,679, describes disposable absorbent articles with biodegradable backsheets. According to Toms et al., there is a particular need to replace polyethylene backsheets in absorbent articles with liquid impervious films comprised of biodegradable materials. *Column 1, lines 48-52*. Moreover, Toms et al. states that the addition of conventional non-biodegradable polymers (e.g., 100% polyethylene) invariably slows down the rate of biodegradation, and hence the compostability of films containing non-biodegradable polymers. *Column 2, lines 62-66*.

Cargill, WO 94/07941, is directed to melt-stable lactide polymer films which are biodegradable. Such films are needed, according to Cargill, since films comprising polymers such as polyethylene and others are not biodegradable and are generally noncompostable. *Page 1, line 35 – page 2, line 3*.

Klemp, U.S. Patent No. 5,176,669, describes tapeless super-absorbent disposable diapers with standing leg cuffs which are an integral part of the absorbent article. The absorbent article of Klemp includes a fluid permeable topsheet, a flexible, absorbent body, a liquid impermeable barrier, and a backsheet. *Column 2, lines 19-24*. The liquid impermeable barrier is a thin film of polyethylene, polypropylene or other flexible moisture impeding material which is substantially water impervious. A biodegradable polyethylene or polypropylene film with starch, carbon or other non-synthetic additives intended to promote biodegradability can be used. *Column 4, lines 17-22*.

Widlund, U.S. Patent No. 5,024, 672, discloses a disposable diaper secured about a user by means of pressure-sensitive adhesive tape tabs and a plastic strip which may be of polyethylene or polypropylene.

Sigl, U.S. Patent No. 4,582,550, describes a method of making an elasticized garment including a flexible substrate which may be of polyethylene film. The elasticized article also includes a shrinkable means which may be of materials such as ethyl vinyl acetate, polypropylene, polyvinyl chloride, and low density polyethylene. *Column 3.*

The Materials Handbook describes polyethylenes, ways of processing them and uses for polyethylenes.

B. Examiner's Rejection

The Office Action sets forth a number of contentions, each allegedly supported by portions of the cited art. To the best of Applicants' ability, the Office Action contends first that it is known to produce components of absorbent articles, such as liquid impermeable backing sheets, topsheets, waist elastics and fastner devices, i.e., landing strips, or packages from material produced from polyethene derived wholly or in part from petroleum products, i.e., non-renewable materials. *Office Action mailed Nov. 2, 2004, page 2, line 16 – page 3, line 2.*

Second, the Office Action contends that manufacture of a film or material, including polyethene, components of that film or material, absorbent articles from the components, film or material, alone or with other components, and methods of manufacture, including those of polyethene, are also known. *Office Action mailed Nov. 2, 2004, page 3, lines 5-9.*

Third, the Office Action contends that it is known to produce ethane [ethene] from ethanol, a renewable material, and to produce polyethene from such ethane [ethene]. *Office Action mailed Nov. 2, 2004, page 3, lines 10-11.*

The allegation is then made that the invention of the claims is known except for the use of renewable raw materials rather than non-renewable raw materials in the manufacture of the polyethene used in the field of application, i.e., absorbent articles or packaging materials. *Office Action mailed Nov. 2, 2004, page 3, lines 11-14.* Thus, according to the Office Action, from the Applicants' admissions as to what is known and the prior art, to use the known polyethene made from renewable materials in the application field of absorbent articles and packages instead of the

previously used polyethene made from non-renewable materials would be obvious to one of ordinary skill in the art in view of the recognition that such would also provide the same advantage or benefit of being more environmentally friendly in those application fields. *Office Action mailed April 22, 2004, page 4, lines 3-8.* Applicants disagree.

C. Applicants' Position

Applicants submit that the art cited by the Examiner has been improperly applied and that the portions of the specification cited by the Examiner do not have the meaning imparted thereto by the Examiner. To illustrate these points, each allegation of the Office Action is reviewed individually herein.

First allegation: It is known to produce components of various absorbent articles from material produced from polyethene derived wholly or in part from petroleum products, i.e., non-renewable materials. *Office Action mailed Nov. 6, 2004, page 2, line 16 – page 3, line 2.*

The support for this contention is allegedly found in six references plus citations to the present specification. Applicants do not dispute that polyethene from non-renewable raw materials was known to be used in the manufacture of components of absorbent products. This, however, does not result in the obviousness of the invention as defined in the claims. As for environmentally friendly products, the cited references teach that only biodegradable polyethene should be used and do not teach polyethene made from renewable raw materials.

Second allegation: Manufacture of a film or material, including polyethene, components of that film or material, absorbent articles from the components, film or material, alone or with other components, and methods of manufacture, including those of polyethene, are also known. *Office Action mailed Nov. 6, 2004, page 3, lines 5-9.*

The support for this contention is allegedly found in the specification, in Toms et al., in Cargill and in the definition of “polyethylenes” from the Materials Handbook.

Applicants do not dispute that polyethene may be used in the manufacture of absorbent products. This, however, does not result in the obviousness of the invention as defined in the claims.

Third allegation: It is known to produce ethane [ethene] from ethanol, a renewable material and to produce polyethene from such ethane [ethene].

Office Action mailed Nov. 6, 2004, page 3, lines 10-11.

The specification and Barrocas et al. were cited for the above allegation. The section cited from Barrocas et al. reads as follows:

The present invention relates to the preparation of ethene, based on a process for dehydrating ethyl alcohol.

More particularly, the object of the invention is the production of ethene in the presence of catalysts, using adiabatic reactors and a high temperature. Such adiabatic reactors may be used in parallel or may be arranged in series or arranged in assemblies of parallel series, or still only a single reactor may be used.

The first records on dehydration of ethyl alcohol remounts to the XVIIIth Century, when ethene was obtained in the laboratory by passing ethyl alcohol over a heated catalyst. With the advent of plastic industry, ethene has become an essential raw material. In the thirties and forties of the present century several dehydrating units of ethyl alcohol were built which remained in operation up to the sixties.

However the situation was reversed due to appearing of processes for obtention of ethene from naphtha cracking. Ethene, instead of being obtained from ethyl alcohol is now the raw material for the manufacture of ethyl alcohol.

The world crisis of petroleum supply which occurred in 1973 brought as a consequence substantial increase in the cost of crude oil and its derivatives, thus rendering competitive the manufacture of ethene from ethyl alcohol. It may be thus foreseen that the methods which employ a renewable supply, such as alcohol obtained by

fermentation of carbohydrates as raw material shall become more important in the future as the world petroleum reserves are being depleted.

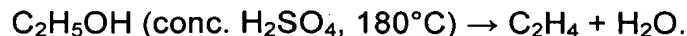
Column 1, lines 4-34. Barrocas et al. does not discuss or mention the production of polyethene. Barrocas et al. is directed only to a process for preparing ethene and mentions that it may be foreseen that methods which employ a renewable supply shall become more important. There is no connection between the Barrocas et al. publication and absorbent articles, much less making environmentally friendly versions of a major landfill constituent.

In making the third allegation, the Examiner has asserted that two sections of the specification constitute an admission that it is known to produce ethane [ethene] from ethanol, a renewable material and to produce polyethene from such ethane [ethene]. Applicants respectfully disagree. The cited art does not teach using renewable ethane when producing polyethene and there is no admission to the contrary.

The first section of the specification cited in support of the third allegation states as follows:

Ethanol is renewable when it is produced from a reproducible plant (*Plantae*). Sugar is converted to ethanol and carbon dioxide by fermentation under the influence of yeast fungi:
$$\text{C}_6\text{H}_{12}\text{O}_6 \rightarrow +2 \text{C}_2\text{H}_5\text{OH} + 2 \text{CO}_2.$$
 Potatoes, seed, forest raw materials or other plants are used in the fermentation process. Every fruit, berry, or plant constituent that includes sugar can be fermented.

Ethene is produced from the renewable ethanol, by dehydrating ethanol for instance. Alcohol loses a water molecule and forms alkene when heated with a strong acid. Ethanol is heated to 180°C with concentrated sulphuric acid:



Polyethene which can be produced from the renewable ethene in the aforescribed manner, is already known in the art. It is also known to produce ethene from ethanol in the manner described above.

Specification, page 9, lines 6-17. However, this is not an admission that it was known in the art to produce polyethene from ethene made from renewable material.

The crux of the alleged admission is the sentence that states:

Polyethene which can be produced from the renewable ethene in the
aforedescribed manner, is already known in the art.

Specification, page 9, lines 15-16. As originally filed, this sentence read:

Polyethene can be produced from the renewable ethene in the
aforedescribed manner, already known in the art.

Original specification (as filed), page 7, lines 25-26. The "aforedescribed manner" is producing polyethene from ethene that was produced from non-renewable sources. *See Specification, page 6, line 13- page 8, line 18.*

Thus, the alleged admission is simply stating that the "aforedescribed manner" is a already known process. Then, that this known process can also be used to produce polyethene from ethene produced from renewable sources. There is no admission that it was known to produce polyethene from ethene produced from renewable sources. In fact, the cited art does not teach using renewable ethene when producing polyethene.

The second section from the specification cited in support of the third allegation reads:

Ethanol is produced from a plant in a conventional manner and ethene is produced from the ethanol as described above. The ethene is then polymerized to polyethene, as described above. The components to be included in the absorbent article are then produced. The component produced may be film for use in producing the liquid-impermeable backing sheet of an article. Film may be produced by a film blowing process, by a molding process, or by cold roll extrusion. The film is then introduced into the article manufacturing process in a conventional manner in which the film is applied to the article, e.g., in a diaper manufacturing machine. Alternatively, the component can be produced in some other way, e.g., as components for use as top

sheets described above. After manufacture, the component is introduced into the article production line.

Specification, page 16, lines 8-17. This section, by itself or in combination with the above cited section, does not support the Examiner's contention of an admission that it is known to produce ethene from ethanol and to produce polyethene from that ethene. Rather, this section just refers to the manner of fabricating and using polyethene in an article.

Thus, the cited art does not teach using renewable ethene when producing polyethene. There is no admission to the contrary.

Fourth allegation: From the Applicants' admissions as to what is known and the prior art, to use the known polyethene made from renewable materials in the application field of absorbent articles and packages instead of the previously used polyethene made from non-renewable materials would be obvious to one of ordinary skill in the art in view of the recognition that such would also provide the same advantage or benefit of being more environmentally friendly in those application fields. *Office Action mailed April 22, 2004, page 4, lines 3-8*

Claim 1 is directed to a method of making an absorbent article wherein the method comprises producing polyethene from renewable raw material. Claim 16 relates to a method of producing an absorbent article including producing ethene from renewable raw material, polymerizing the ethene to polyethene, producing film containing said polyethene and forming at least one article component from the film. Independent claim 35 is directed to a method of making a packaging material including producing polyethene from a renewable raw material. None of the cited art shows all such steps.

As discussed in response to the third allegation, applicants have not admitted that the presently claimed invention is known. Specifically, there was no admission that it is known to use renewable ethene when producing polyethene.

The cited art does not teach or suggest every aspect of the presently claimed invention. The Materials Handbook discusses means of processing polyethylenes.

There is no teaching or suggestion of producing polyethene from renewable raw materials. Sigl describes elasticized garments, not polyethylene from renewable material. Widlund is directed to a fastening means, mentioning polyethylene as a possible backsheet material. However, there is no teaching or suggestion of an environmentally friendly product, especially one produced from renewable raw materials. Klemp is directed to a particular design for a diaper, disclosing a biodegradable polyethylene and starch combination. Cargill teaches away from the use of polyethylene no matter how made in teaching the need for a biodegradable film. *Page 1, line 35 – page 2, line 5*. Toms et al. describes biodegradable backsheets and the disadvantages of non-biodegradable polyethylene. *Column 3, lines 40-49 and Column 2, lines 62-66*.

Contrary to the Examiner's assertion, it would not have been obvious to use polyethene made from renewable raw materials in the application field of absorbent articles and packages instead of the previously used polyethene made from non-renewable raw materials. The asserted motivation being that one skilled in the art would recognize that the polyethene made from renewable materials would provide the same advantage of being environmentally friendly in the application fields.

However, as noted above, the cited art does not teach using renewable materials when producing polyethene. Moreover, there is no motivation found in the cited art to use polyethene made from renewable materials in the application field of absorbent articles and packages. The manner of making environmentally friendly products disclosed in the cited art is to make the products biodegradable. See *Cargill, Toms et al, or Klemp*. Renewable raw materials are not taught or suggested. Polyethene has been used in absorbent articles and as packaging materials for more than 20 years without any teaching or suggestion to use renewable raw materials.

In summary, the cited art is directed towards a different solution to make environmentally friendly products, biodegradable materials. It was not known to use renewable raw materials when producing polyethene, especially for polyethene for use in absorbent articles and packaging materials. Therefore, all the claim limitations have not been taught or suggested and Applicants respectfully request that the rejection of claims 1-7, 16-22, 29, 30, and 34-38 under 35 U.S.C § 103, as

being unpatentable over Applicants' disclosure, Barrocas et al. (US Pat. No. 4,232,179), Toms et al. (US Pat. No. 5,417,679), Cargill (WO 94/07941), Klemp (US Pat. No. 5,176,699), Widlund (US Pat. No. 5,024,672), Sigl (US Pat. No. 4,582,550), and the definition of "polyethylenes," first paragraph, in the Materials Handbook be withdrawn.

Additionally, claims 1-7 and 34-38 specifically claim polyethene that consists of 100% polyethene. 100% polyethene is polyethene without any additives, such as additives necessary to make polyethene biodegradable. Thus, 100% polyethene is substantially non-biodegradable, regardless of whether it is made from petroleum or from renewable sources. The cited art teaches away from using non-biodegradable polyethene in the application field of absorbent articles and packages.

That is, the references teach that while the use of polyethene from non-renewable sources may have been known, only such polyethene that is biodegradable should be used for environmentally-friendly purposes. Cargill states that:

In light of depleting landfill space and adequate disposable sites, there is a need for biodegradable films. Currently, films comprising polymers such as polyethylene, polypropylene, polyethylene terephthalate, nylon, polystyrene, polyvinyl chloride and polyvinylidene chloride are popular for their superior extrusion and film-making properties. However, these films are not biodegradable. Furthermore, these films are generally noncompostable, which is undesirable from an environmental point of view.

Page 1, line 35 – page 2, line 5.

A person skilled in the art, reviewing Cargill, would not choose 100% polyethene at all, even from renewable sources, because 100% polyethene, regardless of whether it is made from renewable resources or not, is substantially non-biodegradable.

Toms et al. is cited for column 1, lines 23-27 and column 11, lines 54-57, which state:

Heretofore, such absorbent structures have been prepared using, for example, topsheet materials prepared from woven, nonwoven, or porous formed-film polyethylene or polypropylene material. Backsheet materials typically comprise flexible polyethylene sheets.

Column 1, lines 23-27; and

Importantly, the absorbent articles according to the present invention are compostable to a greater extent than conventional absorbent articles which employ a polyolefin, typically a polyethylene backsheet.

Column 11, lines 54-57.

These cited passages are directed to polyethene backsheets. However, Tom et al., considered as a whole, directed to disposable absorbent articles with biodegradable backsheets comprising blends of an interpenetrated network of deconstructurized starch with ethylene/acrylic acid copolymers or ethylene/vinyl alcohol copolymers and an aliphatic polyester. *Column 3, lines 40-49.* Toms et al. specifically states that it was discovered that the addition of conventional non-biodegradable polymers (e.g., 100% polyethylene) invariably slows down the rate of biodegradation, and hence the compostability of films containing the nonbiodegradable polymers. *Column 2, lines 62-66.* In view thereof, a person skilled in the art, reviewing Toms et al., would not choose 100% polyethene at all, even from renewable sources, because 100% polyethene, regardless of whether it is made from renewable resources or not, is substantially non-biodegradable.

Also disclosed by the Examiner, Klemp is directed to a tapeless super-absorbent disposable diaper which may have a liquid impermeable barrier which is made from a biodegradable material. Widlund was further cited in support of the above allegation. Widlund is directed to a disposable diaper with a particular tape tab fastening means that can suitably be of polyethylene. Sigl describes elasticized garments, not polyethylene from renewable material. The final citation is to the definition of "polyethylenes" in the first paragraph of the Materials Handbook.

The cited references, other than the present specification, either do not refer to environmental solutions or, instead, suggest that biodegradable materials be used. Specifically, the cited references teach away from using 100% polyethene, instead disclosing or suggesting solving the environmental problems with biodegradable materials.

Therefore, in addition to the arguments made above, claims 1-7 and 34-38 are patentable. Applicants respectfully request that the rejection of claims 1-7 and 34-38 under 35 U.S.C § 103, as being unpatentable over Applicants' disclosure, Barrocas et al. (US Pat. No. 4,232,179), Toms et al. (US Pat. No. 5,417,679), Cargill (WO 94/07941), Klemp (US Pat. No. 5,176,699), Widlund (US Pat. No. 5,024,672), Sigl (US Pat. No.4,582,550), and the definition of "polyethylenes," first paragraph, in the Materials Handbook be withdrawn.


VIII. Claims Appendix

See attached Claims Appendix for a copy of the claims involved in the appeal.

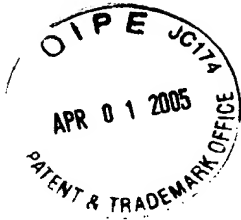
Respectfully submitted,

Burns, Doane, Swecker & Mathis, L.L.P.

Date 4/1/05

By: 
Travis D. Boone
Registration No. 52,635

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620



VIII. CLAIMS APPENDIX

The Appealed Claims

Claim 1. (Previously Presented) A method of making an absorbent article, the method comprising:

producing polyethene from renewable raw material, and
using the polyethene in a component of the absorbent article,
wherein the polyethene consists of 100% polyethene.

Claim 2. (Previously Presented) The method according to Claim 1, wherein the component consists of said polyethene.

Claim 3. (Previously Presented) The method according to Claim 1, wherein the component comprises from 50 to 99% of said polyethene.

Claim 4. (Previously Presented) The method according to Claim 1, wherein the component is a liquid impermeable backing sheet of the absorbent article.

Claim 5. (Previously Presented) The method according to Claim 1, wherein the component is an outer sheet or top sheet of the absorbent article.

Claim 6. (Previously Presented) The method according to Claim 1, wherein the component is a waist elastic of the absorbent article.

Claim 7. (Previously Presented) The method according to Claim 1, wherein the component is a fastener device of the absorbent article.

Claims 8.-15. (Canceled)

Claim 16. (Previously Presented) A method of producing an absorbent article, said method comprising
producing ethene from renewable raw material;
polymerizing the ethene to polyethene;
producing film containing said polyethene;
forming at least one article component from said film;
feeding said component into a machine together with an absorbent body; and
joining said component to the absorbent body.

Claim 17. (Previously Presented) The method according to Claim 16, wherein said film is formed solely from said polyethene.

Claim 18. (Previously Presented) The method according to Claim 16, wherein said film is formed from a mixture that includes from 50 to 99% of said polyethene.

Claim 19. (Previously Presented) The method according to Claim 16, wherein said at least one article component is a liquid-impermeable backing sheet of the absorbent article.

Claim 20. (Previously Presented) The method according to Claim 16, wherein said at least one article component is an outer sheet or top sheet of the absorbent article.

Claim 21. (Previously Presented) The method according to Claim 16, wherein said at least one article component is waist elastic of the absorbent article.

Claim 22. (Previously Presented) The method according to Claim 16, wherein said at least one article component is a fastener device of the absorbent article.

Claims 23.-28. (Canceled)

Claim 29. (Previously Presented) The method according to Claim 16, wherein said article is a diaper, a sanitary napkin, an incontinence protector, a panty liner, or a pant diaper.

Claim 30. (Previously Presented) The method according to Claim 16, wherein the renewable raw material is ethanol.

Claims 31.-33. (Canceled)

Claim 34. (Previously Presented) The method according to Claim 1, wherein the absorbent article is a diaper, a sanitary napkin, an incontinence protector, a panty liner, or a pant diaper.

Claim 35. (Previously Presented) A method of making a packaging material, comprising: producing polyethene from a renewable raw material, and producing from the polyethene a component of the packaging material which comprises the polyethene, wherein the polyethene consists of 100% polyethene.

Claim 36. (Previously Presented) A method according to Claim 35, wherein the component consists of said polyethene.

Claim 37. (Previously Presented) A method according to Claim 35, wherein the component comprises from 50 to 99% of said polyethene.

Claim 38. (Previously Presented) The method according to Claim 16, wherein the polyethene consists of 100% polyethene.